

**Amendments to the Specification:**

Please replace paragraph [0094] with the following amended paragraph:

[0094] As shown in Fig. 7, antenna 706 may be directional, and may be placed on an emergency vehicle. For example, antenna 706 may comprise a left directional antenna 714 and a right directional antenna 716, a half wave whip transmit antenna 720 and a half wave whip receive antenna 718. A navigation solution requires two components, a bearing and a range. A mobile platform such as mobile location component 256 can make successively accurate measurements just by traveling in the direction of increasing signal level. As an alternative to simple directional antennas, omnidirectional antennas consisting of two or more each spatially separated (Reference Figure 9) at the antenna boom ends coupled with time of arrival and angle of arrival computation techniques can provide bearing information. They can also be used together as shown in this example of Figure 7. RSL computations provide range information. Together they provide navigation information which can be overlaid on a map. As signals from mobile unit 120 reach antennas 714, 716, mobile location receiver 702 uses a time difference of arrival algorithm that measures an offset time to determine a bearing measurement. Alternatively, an angle of arrival algorithm or other algorithm may be employed. Mobile location receiver 702 calculates the RSL to arrive at a range measurement, providing the range required for the second navigation component.

Please replace paragraph [0095] with the following amended paragraph:

[0095] The velocity of propagation in the atmosphere is slightly slower than in free space. The velocity of propagation in free space has been accurately determined to be  $2.99792458 \times 10^8$  meters per second by national standards groups. A very small percentage error in the atmospheric velocity calculation will generate a large position error. Atmospheric propagation speeds are dependent on atmospheric air pressure, humidity and temperature. Air pressure and temperature in turn depend on elevation and climatology. Air density is a function of air temperature, altitude and humidity. These factors affect the size of the antenna boom. To make the boom length practical for

vehicles and hand held units, mobile location receiver adds a second channel with offset timing signal. In this example the second timing signal is offset from the first by some ~~300~~500 picoseconds in round numbers or a ~~third~~half of a nanosecond. Small accurate delays can be achieved a number of ways using circuitry components. The important point is to delay the second channel relative to the first by a controlled amount so figure 9 can be computed with precision. Delay can be controlled by a number of methods for example extra circuitry path length in one timing signal relative to the other. It could be generated by an extra gate in a FPGA circuit. It can even be crafted by surface acoustic wave devices. In the case where antenna 706 is directional, antenna 706 may have a directional antenna pattern as shown in figure 8, for example. An omni-directional antenna (e.g. directional antennas 714 and 716) may have directional pattern 804 within a radius 802. Null point 806 occurs when the antenna boom 707 is on a heading directly toward the mobile unit.